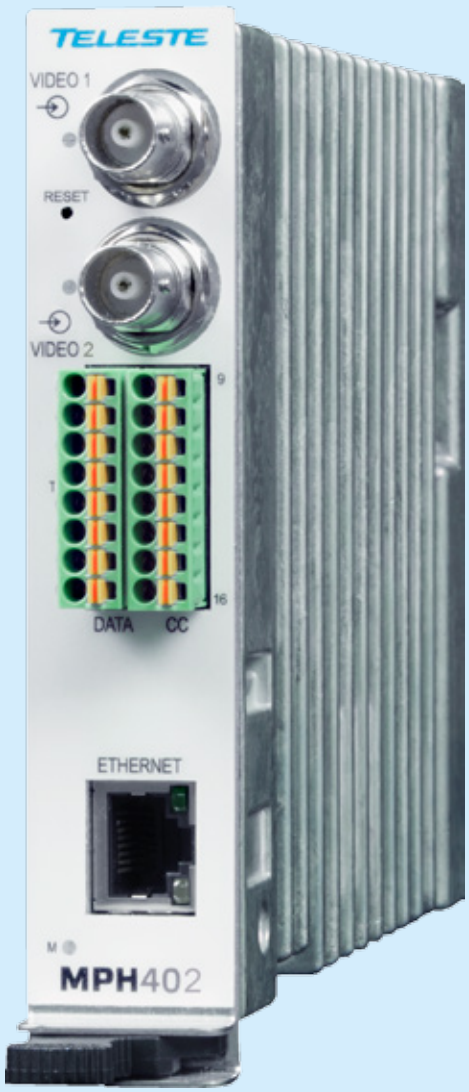
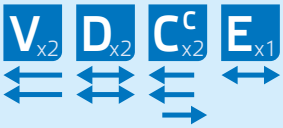
Product Information – MPH402/412

Two Channel Video Processor

MPH is the next generation high performance H.264 network video product encoding video in unmatched quality in mission critical applications for customers in rail, road, airport, city center monitoring and corporate security.





H.264
MPEG-4
MJPEG
MPEG-2

ONVIF

MPH402 and MPH412 can deliver two independent video streams per video input at full frame rate and full resolution (SD) using H.264, MPEG-2, MPEG-4 or MJPEG, or any combination of these. This allows security professionals to optimise each of the individual streams for its purpose, e.g. live viewing, recording, web applications, PDA etc. It also ensures safe and seamless migration path from any legacy hybrid video network towards full breed H.264 based network.

The video streams can be decoded by standards compliant media players and video decoder devices. The stream authenticity is an integral part of the solution fulfilling the most stringent requirements for evidential material set by authorities.

The built-in EIA RS data channels provide multi-vendor PTZ camera control through Ethernet network. The alarm inputs and output can be used to trigger events and control external devices.

MPH provides direct copper or fibre connectivity to Fast/Gigabit Ethernet networks. The use of SFP plug-in optics makes it suitable for deployment in a wide range of optical networks.

In addition to Command Line Interface and comprehensive Web user interface, MPH speaks ONVIF fluently. This provides straight forward interoperability with any ONVIF compliant management system. Integration to third party systems can also be achieved using RTSP, SAP or SNMP.

MPH402/412 is a high performing choice for multichannel operation when the available space is limited. Up to 32 camera inputs with dual streaming can be installed into 3U rack space.

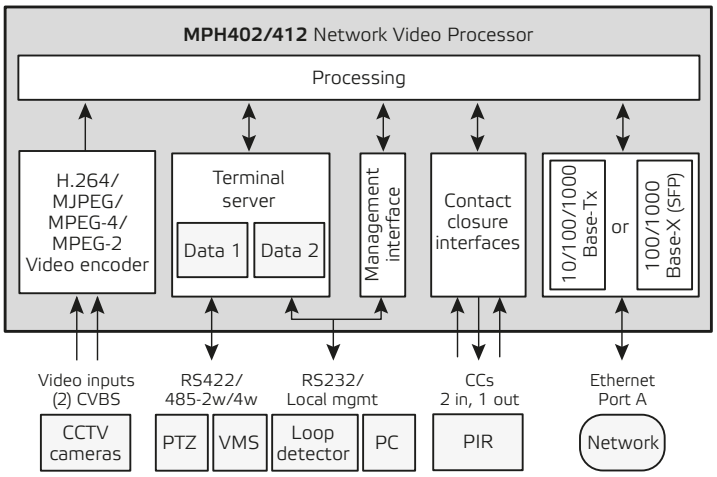
Low cost of ownership is guaranteed by low power consumption figures, which combined with custom made mechanical design, fulfils the criteria set for high availability. The system level is further improved by harnessing the installation frame with redundant powering.

MPH is the industry leader in video encoding for surveillance applications. It gives you the touch and feel of traditional analogue systems while providing the flexibility and manageability provided by today's Ethernet networks.

Features

- QCIF to SDTV resolution at 25/30 fps
- Low video latency
- Simultaneous H.264, MPEG-4, MPEG-2 and MJPEG encoding
- Dual streaming to full D1 per video input
- Support for transparent data tunnelling and ONVIF PTZ service
- Alarm inputs and relay output
- Built-in video analytics
- Support for ONVIF and SNMP management interface
- Support for WebUI and CLI user interface
- Support for SFP
- Video signature for content authentication
- Text overlay
- Privacy masking

Block diagram



Technical specifications *(Typical values unless otherwise stated, * = define when ordering, ** = optional, *** = ordered separately)*

Video

Number of inputs	2 PAL/NTSC	
Nominal level	1.0 Vpp	
Input impedance	75 ohms	
Number of encoding profiles	8	
Number of output streams	4 per profile	multicast/unicast
Encoding [1]	ISO/IEC 14496-10 RFC 2435 ISO/IEC 14496-2 ISO/IEC 13818	H.264 MP, BP MJPEG MPEG-4 SP/ASP ** MPEG-2 MP@ML **
Resolution	½D1,D1	H.264 MP, MPEG-4 ASP, MPEG-2
	QCIF, CIF, 2CIF, 4CIF	H.264 BP, MJPEG, MPEG-4 SP, MPEG-2
Frame rate (fps)	1...25 PAL, 1...30 NTSC 25 PAL, 30 NTSC	H.264, MJPEG, MPEG-4 MPEG-2
Output bit rate (adjustable)	64 kbps...8 Mbps	H.264, MJPEG, MPEG-4, MPEG-2
Latency	< 120 ms	
Video pre processing	motion adaptive deinterlace, freely scaled antialiased truetype text overlay, privacy zone masking	
Video content analytics (VCA)	tampering detection, motion detection	
Video authentication	cryptographic signatures (RSA)	
Video connector	BNC female	CVBS video

Data

Number of channels	2	bi-directional
Data 1 standard Data 2 standard	RS422/485 RS232	selectable, with term/bias fixed
Bit rate	0.6...230.4 kbps	standard speeds
Format	asynchronous	standard framings
ONVIF PTZ service	Pelco D, Pelco D Extended	PTZ protocols
Transport	TCP/IP unicast or UDP/IP multicast	selectable
Data connector	removable screw terminal	

Contact Closure

Number of channels	2 inputs / 1 output	
Input		
dry contact current loop (opto isolated)	on/off logical 0 (0...+1.4 VDC), logical 1 (+2.2...+30 VDC)	short circuit
Output		
relay	max. 30 VDC / 0.6 A	
Control delay	< 20 ms	
CC connector	removable screw terminal	

Ethernet Interface

Number of ports	1 full duplex (port A)	electrical or SFP slot *
Speed	100Mbps / 1000Mbps **	
Fast Ethernet	10/100BASE-TX 100BASE-FX	fixed SFP ***, with SGMII mode
Gigabit Ethernet **	10/100/1000BASE-T 1000BASE-X	fixed SFP ***
Ethernet connector	RJ-45 female LC	electrical optical

Ethernet Protocols

Video/Data	RTP, UDP, TCP, IP, SAP, RTSP
Management	SNMP **, HTTP, DHCP, SSH, Telnet
Generic	DHCP, DNS, ZeroConf, ICMP, IGMPv3, ARP, NTP, QoS

SFP Transceivers ***

See separate document "Product Specification / SFP Transceivers"

Management

WebUI CLI	Local via Ethernet port, remote via network Via telnet, SSH or local RS232
SNMP ** ONVIF	Remote via network [2] Industry standard ONVIF protocol [2]
Diagnostics Software update	SNMP ** or ONVIF Local or remote via CLI, WebUI or ONVIF

General

Supply voltage	10.5...28 V DC	
Power consumption	5.5 W	
PSU connector	2-pin removable screw terminal	
Dimensions (H x W x D) Weight	130 x 26 x 170 mm (5,12 x 1,02 x 6,69") 1.0 kg (2.2 lbs)	
Mounting options	rack mount, wall mounting ***	
Operating temperature Storage temperature	-10...+60 ºC (14...+140 ºF) -40...+80 ºC (-40...+176 ºF)	
MTBF	> 130.000 hours	HRD5
Approvals	CE, FCC	
EMC	EN 50130-4, EN 61000-6-3, FCC 47 part 15	
Environmental	IEC/EN 60068 series cold, Dry heat, Vibration, Shock test, Transport bump, Damp heat and Random vibration	

Ordering Code

MPH402	2 Ch H.264/MJPEG Encoder, Fast Ethernet, RJ-45
MPH412	2 Ch H.264/MJPEG Encoder, Fast Ethernet, SFP support

Additional Features and Services ***

MLH241	Network interface upgrade to Gigabit Ethernet
MLH322	MPEG-2 encoding licence for 2 channel MPH
MLH332	MPEG-4 encoding licence for 2 channel MPH
MLH371	Support for SNMP configuration interface
MSH001	Configuration Service
MSH271	Extended Warranty
MSH380	SLA

Accessories ***

MSR416	Installation frame	19" 3U, 16 slots
MCP401	Cover plate	1 slot
MCP404	Cover plate	4 slots
MPS120	Power supply	12 VDC, 10 A
CIC506	Management cable	D9F/8-pin screw terminal

Notes

[1] H.264 and MJPEG are default encoding engines. MPEG-2 and MPEG-4 are add-on options
[2] The unit can support either SNMP or ONVIF interface, but not both simultaneously

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